

Remarks

**I. Amendments**

I-1. In the claims

Claim 1 has been amended. Specifically, the limitations of claims 7 and 8 have been introduced into claim 1. Claims 7 and 8 have been cancelled, and the dependency of claim 13 has been changed accordingly.

I-2. In the specification

In Tables 1 and 2 at pages 91 and 94, respectively, apparent errors have been corrected. Support for these amendments is found at, for example, page 31, lines 7 to 25 of the specification of the present application.

The first column, last row of each of Tables 1-3 has been amended to recite "Matteness of the ~~coated~~ surface" to correct another unintentional clerical error. In the Examples, the "matteness" was actually evaluated with respect to the uncoated surfaces of the shaped resin articles. Support for this correction may be found, for example, at page 84, line 16 to page 86, line 18. No new features and/or new matter have been added.

**II. Rejection of claims 1-11 and 13-15 under 35 U.S.C.**

**103(a)**

In the Office Action dated March 24, 2010, the Examiner maintained the rejection of claims 1-11 and 13-15 of the present application as being unpatentable over U.S. 7,220,795 (**Miyoshi et al.**) further in view of U.S. 5,965,655 (**Mordecai et al.**)

Specifically, as to the use of block copolymer (C-1) having an Mn of 200,000 to 300,000 and the combined use of such block copolymer (C-1) and wollastonite particles (E), the Examiner states that the Applicants have not provided sufficient evidence supporting the critical importance of these features. Further, the Examiner states that the use of wollastonite particles (E) is obvious in view of the teaching of Mordecai et al.

**The rejection is respectfully traversed as follows.**

As mentioned in item I above, into claim 1 of the present application, the features of claims 7 and 8 have been introduced. Specifically, as to the polyphenylene ether (B) present in the shaped resin article of the present invention, amended claim 1 recites the presence of:

relatively high molecular weight polyphenylene ether molecules (hereinafter "High Mw PPE"), each independently having a molecular weight of 200,000 or more, and

relatively low molecular weight polyphenylene ether molecules (hereinafter "Low Mw PPE"), each independently hav-

ing a molecular weight of 5,000 or less.

With respect to these High Mw PPE and Low Mw PPE, amended claim 1 recites the following requirements:

- (i) weight ratio of High Mw PPE/Low Mw PPE  $\leq$  0.35,
- (ii) amount of Low Mw PPE  $\leq$  5 wt%, and
- (iii) amount of High Mw PPE  $\geq$  2 wt%.

These requirements (i) to (iii) are critical for achieving the excellent coating adhesion strength of the shaped resin article of the present invention. In order to substantiate this, the Applicants submit herewith the 2nd Declaration of Mr. Takaaki Miyoshi. Specifically, Mr. Miyoshi has carried out experiments to evaluate the coating adhesion strengths of pellets of resin compositions which are varied with respect to the contents and ratio of the High Mw PPE and the Low Mw PPE. The experiments are described in Exhibit 1 of the accompanying 2nd Declaration executed by Mr. Miyoshi.

It should be noted that the greater than or equal to symbol ( $\geq$ ) and the less than or equal to symbol ( $\leq$ ) are inadvertently reversed in the enclosed declaration. Applicants are working on correcting this matter.

From the results of Exhibit 1 of Mr. Miyoshi, it can be fairly concluded:

(1) that, in Experiment 1 (present invention) where the PPE contained in the sample pellets satisfied all of the following requirements: (i) weight ratio of High Mw PPE/Low Mw PPE  $\leq$  0.35, (ii) amount of Low Mw PPE  $\leq$  5 wt%, and (iii) amount

of High Mw PPE  $\leq$  2 % wt%, the pellets exhibited an extremely excellent coating adhesion strength, 100 %, which means that none of the 100 square coating sections were peeled off in the adhesion test described at page 86, line 9 to page 87, line 7 of the specification of the present application;

(2) that, on the other hand, in Comparative Experiment 1 where only the requirement (ii) (Low Mw PPE  $\leq$  5 wt%) was not satisfied, the coating adhesion strength became as low as 53 %;

(3) that, in Comparative Experiment 2 where the requirement (iii) (High Mw PPE  $\leq$  2 wt%) and the requirement (i) (High Mw PPE/Low Mw PPE  $\leq$  0.35) were not satisfied, the coating adhesion strength became as low as 89 %;

(4) that, in Comparative Experiment 3 where only the requirement (i) (High Mw PPE/Low Mw PPE  $\leq$  0.35) was not satisfied, the coating adhesion strength became as low as 88 %;  
and

(5) that, from items (1) to (4) above, it is apparent that the requirements (i) to (iii) concerning the amounts and ratio of Low Mw PPE and High Mw PPE are critical for achieving the excellent coating adhesion strength in the present invention.

Especially, the attention is drawn to the fact that the

results of Comparative Experiment 3 of the 2nd Declaration of Mr. Miyoshi show that, even when the amounts of both of High Mw PPE and Low Mw PPE are small and satisfy the requirements (ii) and (iii), the excellent coating adhesion strength can-not be achieved unless the ratio of these molecules satisfies the requirement (i), i.e., within the range ( $\leq 0.35$ ) recited in claim 1 of the present application.

Neither Miyoshi et al. nor Mordecai et al. teach or suggest the features represented by the above-mentioned requirements (i) to (iii) about PPE present in the shaped resin article and the excellent coating adhesion strength achieved by these features.

Further, in addition to the features represented by the above-mentioned requirements (i) to (iii) about the PPE present in the shaped resin article, the shaped resin article of the present invention must also satisfy other requirements such as the use of the specific block copolymer (C-1).

Again, neither Miyoshi et al. nor Mordecai et al. teach or suggest the importance of simultaneously satisfying all of the requirements of the present invention including the requirements (i) to (iii) about the PPE present in the shaped resin article and the use of the specific block copolymer (C-1).

From the above, it is apparent that the invention of amended claim 1 is **not** obvious over Miyoshi et al. even in

view of Mordecai et al.

### **III. Conclusion**

From the foregoing, it is apparent that none of the cited references has any teaching or suggestion about the essential features of the present invention and excellent effects thereof.

It is believed that the present application is now in condition for allowance.

Reconsideration and early favorable action on the claims are earnestly solicited.

If there are any additional fees associated with the filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectively Submitted,

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